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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,163	03/31/2004	Zhenlin Liu	A8698	4479
23373	7590	09/15/2008	EXAMINER	
SUGHRUE MION, PLLC			SAYADIAN, HRAYR	
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20037			2815	
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			09/15/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/813,163	LIU ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	HRAYR A. SAYADIAN	2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 6/27/2008.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-40 is/are pending in the application.

4a) Of the above claim(s) 1,3,5,6,10,11 and 15-40 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 2,4,7-9 and 12-14 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/27/08 and 4/10/08.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_ .

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_.

**DETAILED 08/08/08 OFFICE ACTION**

**The Election and Restriction Requirements and Applicant's Elections**

1. Claims 3, 5, 6, 10, 11, 15-23, 25-34, and 36 are directed to invention restricted and non-elected without traverse. Claims 24 and 35 are also directed to an invention not elected without traverse (the embodiment described with respect to FIG. 1) but was contended by Applicant to be not so. Contrary to this contention however claim 24 explicitly recites "means for improving fidelity of the polarization," which the disclosure explicitly describes as forming only part of the non-elected embodiment. See, for example, paragraphs [0063], [0067], and [0068] of the PGPUB of this application; see also not traversing withdrawal of claim 15. Similarly, new claims 37-40 recite "means for improving fidelity ..." and therefore are directed to an invention not elected without traverse.

Accordingly, claims 1, 3, 5, 6, 10, 11, 15-40, have been withdrawn as being directed to species, or directed to inventions, non-elected without traverse.

The restriction requirements are proper and their finality is maintained.

**Claim Rejections - 35 U.S.C. § 102**

2. Claims 2, 4, 7-9, and 12-14, are rejected under 35 U.S.C. § 102(e) as being clearly anticipated by U.S. PGPUB 2003/0156605 to "Richardson." U.S. Pat. No. 5,450,427 to "Fermann" is provided as evidence.

As to claim interpretation: recitations connoting optional elements/functions, including, but not limited to, "selected" and "selectively," are considered and determined to have a scope of choosing not to include/select the optional element/function, which includes the scope of not.

Absent claiming how functional effects, or affects, are achieved by structural limitations, a functional recitation is determined to be intended-use language (or intended-outcome) not distinguishing scope of an apparatus claim over prior art apparatus capable of performing the intended-use (or capable of achieving the intended-outcome) language. See, for example, M.P.E.P § 2114 and the precedents cited therein. And, absent claiming a required step or

structure or feature further limiting scope of a method or process claim, reciting an intended-use (or intended-outcome or an outcome of a required step already disclosed by the prior art or an optional step or structure or feature) in the claim fails to distinguish the claim over prior art that can be so modified or used. See, for example, M.P.E.P. § 2111.04, and precedents cited therein.

With respect o claim 2, for example, "a stretcher module for ..." has been considered and determined to have a scope of "a stretcher module" with the intent to use it "for ...." And with respect to claim 4, for example, the recitation "an AOM selecting output ..." has been considered and determined to have a scope of an AOM, with the intended function of "selecting ...." And in claim 4, "is provided as a pre-tested module" and "said system is constructed by individually connecting ..." are intended use/method of making language, not narrowing scope of the structural element. "Pre-tested" is considered and determined to have a scope including choosing the element, which is inherently met by element forming part of the system.

As to art rejection: Richardson discloses all of the limitations of the claims. See, for example, the front page disclosing an oscillator 10, stretcher 128, an amplifier 68a, and a compressor 146. These modules are disclosed as connected by fiber splices. And by their very nature, these modules are subject to separate assembly and test. And these fibers would have leakage, which reads on the "taps," means for picking off," ... etc. See, for example, PGPUB of this application paragraph [0057]. The reflecting surface of the compressors/stretchers act as another "tap," or "means for picking off a portion off." Richardson also discloses an AOM. The filter narrowing the spectrum also reads on the function of the amplifiers disclosed by Richardson because every amplifier has a limited bandwidth and therefore an amplifiers output is filtered to a narrower bandwidth than the input spectrum by way of the relative lower amplification of the outlying spectra of the input signal.

Richardson discloses a down-converter 52 (disclosed as a pulse selector, which down converts the effective repetition rate of the laser system). Richardson discloses the various down converters (pulse selectors) 132a and 132b that are AOM. See, for example, paragraphs [0136], [00185] and [0187].

**Response to Applicant's Argument(s)**

3. Applicant's arguments have been fully considered, but are found not to overcome the prior art rejections.

Applicant contends that Richardson does not disclose the AOM reducing repetition rate. In response, Examiner notes that the Abstract specifically discloses the feature Applicant contends Richardson fails to disclose.

Applicant also contends that the features recited in the claims have advantages. In response, Examiner notes that the rejection is anticipatory and therefore the anticipated limitations inherently have the advantage Applicant is touting.

The arguments directed to modularity, integration, and pre-testing have been dealt with before and are expressly incorporated herein by reference. Such contentions and rebuttals include, but are not limited to Applicant contending, "Examiner ... fails to recognize the differences between the laser in this published patent application and that as claimed." In making this contention, Applicant recognizes that "the fiber laser system in Richardson, as well as that of Applicant's own referenced prior art which Richardson largely adopts, are research tools fixed to optical tables which have been carefully assembled and aligned by PhDs and graduate students." Following this recognition, Applicant continues to contend, "the system disclosed in the present application can be produced in quantity and simply assembled using common fiber splicing techniques, from modules that can be separately assembled and tested." (Underlined for emphasis). In response, Examiner simply notes that Applicant's latter quoted sentence directly contradicts Applicant's former quoted sentence. Applicant's latter contention simply fails to convince because Applicant recognizes that PhDs and graduate students "carefully assembl[e]" (and therefore must be using "module[s] ... subject to separate assembly") and "align[]" (and therefore "module[s] ... subject to separate test").

The Reply contends that Richardson fails to disclose fiber-splices.

In response, Applicant is directed to paragraph [0184] of Richardson, expressly disclosing using fiber splices to connect elements of the oscillator/amplifier.

The Reply contends that Richardson fails to disclose means for picking off.

In Response, Examiner notes that paragraph [0057] of the PGPUB corresponding to this application describes what a means for picking off is, which has a scope including element causing a small fraction of reflected light. Such an element reads on interfaces between optical elements having differing indices of refraction and therefore causing a reflection of a portion of light passing through. And Richardson discloses the presence of such reflected radiation. See, for example, paragraph [0041], which would be caused by a "means for picking off," the equivalence being the reflection/leakage off of interfaces between non-index matched surfaces.

The Reply argues the function of the AOM with respect to claim 9. IN Response, Examiner notes that absent a structure limiting the claim, a device claim reciting function (without means for language) has a scope of requiring the element being capable of performing the function. And the AOM disclosed by Richardson by its inherent limited bandwidth is capable of performing the function recited in claim 9.

With respect to claim 13, the Reply contends that Richardson is silent on the spectrum of the oscillator and therefore fails to disclose a system producing a relatively broad bandwidth.

In response, Examiner directs Applicant to FIGs. 8 and 9.

## CONCLUSION

4. A shortened statutory period for reply to this Office Action is set to expire THREE MONTHS from the mailing date of this Office Action. Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

Any inquiry concerning this communication or earlier communications from an Examiner should be directed to Examiner Hrayr A. Sayadian, at (571) 272-7779, on Monday through Friday, 7:30 am – 4:00 pm ET.

If attempts to reach Mr. Sayadian by telephone are unsuccessful, his supervisor, Supervisory Primary Examiner Kenneth Parker, can be reached at (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available only through Private PAIR. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. The Electronic Business Center (EBC) at 866-217-9197 (toll-free) may answer questions on how to access the Private PAIR system.

/Hrayr A. Sayadian/  
Patent Examiner, Art Unit 2815